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PTO/SB/05 (11-00)  
Approved for use through 10/31/2002. OMB 0651-0032

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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b>  (Only for new nonprovisional applications under 37 CFR 1. 53(b))	<b>Attorney Docket No.</b>	NREL 99-38
	<b>First Inventor</b>	Michael E. Himmel
	<b>Title</b>	Endoglucanase Mutants & Mutant Hydrolytic...
	<b>Express Mail Label No.</b>	EJ 200220335 US

<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
1. <input type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/1 7) (Submit an original and a duplicate for fee processing)	7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
2. <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
3. <input checked="" type="checkbox"/> Specification [Total Pages 36] (preferred arrangement set forth below) <ul style="list-style-type: none"><li>- Descriptive title of the invention</li><li>- Cross Reference to Related Applications</li><li>- Statement Regarding Fed sponsored R &amp; D</li><li>- Reference to sequence listing, a table, or a computer program listing appendix</li><li>- Background of the Invention</li><li>- Brief Summary of the Invention</li><li>- Brief Description of the Drawings (if Red)</li><li>- Detailed Description</li><li>- Claim(s)</li><li>- Abstract of the Disclosure</li></ul>	a. <input type="checkbox"/> Computer Readable Form (CRF)
4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S. C. 1 13) [ Total Sheets 3 ]	b. Specification Sequence Listing on: <ul style="list-style-type: none"><li>1. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or</li><li>11. <input type="checkbox"/> paper</li></ul>
5. Oath or Declaration [ Total Pages 3 ] <ul style="list-style-type: none"><li>a. <input checked="" type="checkbox"/> Newly executed (original or copy)</li><li>b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 1 8 completed)</li><li><input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</li></ul>	c. <input type="checkbox"/> Statements verifying identity of above copies
6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76	

<b>ACCOMPANYING APPLICATION PARTS</b>	
9. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))	
10. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee)	<input type="checkbox"/> Power of Attorney
11. <input type="checkbox"/> English Translation Document (if applicable)	
12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449	<input type="checkbox"/> Copies of IDS Citations
13. <input type="checkbox"/> Preliminary Amendment	
14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)	
15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)	
16. <input type="checkbox"/> Request and Certification under 35 U.S.C. 122 (b)(2)(13)(i). Applicant must attach form PTO/SB/35 or its equivalent.	
17. <input type="checkbox"/> Other: _____	

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1. 76.,

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_ / \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group Art Unit, \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been specifically identified from the submitted application parts.

<b>19 CORRESPONDENCE ADDRESS</b>					
<input checked="" type="checkbox"/> Customer Number or Bar Code Label <b>23712</b> (Insert Customer No. or Attach bar code label here) or <input type="checkbox"/> Correspondence address below					
PATENT TRADEMARK OFFICE					
<b>Name</b>		Paul J. White			
<b>Address</b>		National Renewable Energy Laboratory 16 17 Cole Blvd.			
<b>City</b>	Golden	<b>State</b>	CO	<b>Zip Code</b>	80401
<b>Country</b>	USA	<b>Telephone</b>	303/384-7575	<b>Fax</b>	303/384-7499

<b>Name (Print/Type)</b>	Paul J. White	<b>Registration No. (Attorney/Agent)</b>	30,436
<b>Signature</b>	<i>Paul J. White</i>	<b>Date</b>	November 19, 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

NREL 99-38

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

INTERNATIONAL APPLICATION NO.

PCT/US00/13971

INTERNATIONAL FILING DATE

19 MAY 2000

PRIORITY DATE CLAIMED

19 MAY 1999

## TITLE OF INVENTION

ENDOGLUCANASE MUTANTS AND MUTANT HYDROLYTIC DEPOLYMERIZING ENZYMES AND USES THEREOF

## APPLICANT(S) FOR DO/EO/US

Michael E. Himmel, William S. Adney, John O. Baker, Todd B. Vinzant, Steven R. Thomas, Joshua Sakon and Stephen R. Decker

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 3 1).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☒ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11 to 20 below concern document(s) or information included:**

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information:

Post Card Receipt, Utility Patent Application Transmittal

PCT/US00/13971

NREL 99-38

21. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):**

Neither international preliminary examination fee (37 CFR 1.482)

nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO

and International Search Report not prepared by the EPO or JPO ----- \$1000.00

International preliminary examination fee (37 CFR 1.482) not paid to  
USPTO but International Search Report prepared by the EPO or JPO ----- \$860.00International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ----- \$710.00International preliminary examination fee (37 CFR 1.482) paid to USPTO  
but all claims did not satisfy provisions of PCT Article 33(1)-(4) ----- \$690.00International preliminary examination fee (37 CFR 1.482) paid to USPTO  
and all claims satisfied provisions of PCT Article 33(1)-(4) ----- \$100.00**ENTER APPROPRIATE BASIC FEE AMOUNT****CALCULATIONS PTO USE ONLY**

\$ 100.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$
Total claims	26 -20 =	6	x \$18.00 9	\$ 108.00
Independent claims	6 -3 =	3	x \$80.00 42	\$ 240.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$ 0
<b>TOTAL OF ABOVE CALCULATIONS</b>				= \$ 448.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				+
<b>SUBTOTAL</b>				- \$ 224.00
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$
<b>TOTAL NATIONAL FEE</b>				= \$ 224.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$
<b>TOTAL FEES ENCLOSED</b>				= \$ 224.00
				Amount to be refunded: \$
				charged: \$ 224.00

a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.b. ☒ Please charge my Deposit Account No. 14-1460 in the amount of \$ 224.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 14-1460. A duplicate copy of this sheet is enclosed.d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card  
information should not be included on this form.** Provide credit card information and authorization on PTO-2038.**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR  
1.137 (a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Paul J. White  
National Renewable Energy Laboratory  
1617 Cole Blvd.  
Golden, CO 80401

SIGNATURE

Paul J. White

NAME

30,436

REGISTRATION NUMBER

11/19/01  
J1048 U.S. PTO

11/26/01  
Express Mail - EJ200220347 US

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant(s): Michael E. Himmel et al. )  
)  
Serial No.: Not Yet Accorded ) Art Unit: Not Yet Accorded  
)  
Filing Date: Not Yet Accorded ) Examiner: Not Yet Accorded  
)  
Title: Endoglucanase Mutants and Mutant ) Atty. Dkt. No.: NREL 99-38  
Hydrolytic Depolymerizing Enzymes )  
and Uses Thereof )

STATEMENT UNDER 37 CFR § 10.18

Assistant Commissioner for Patents  
U.S. Patent & Trademark Office  
Box Filing Date  
P.O. Box 2327  
Arlington, VA 22202

*Receipt date granted  
is 11/19/01.  
J. Chang  
from OPLA*

Dear Sir:

The undersigned declares that he attempted to deposit the above-referenced patent application and filing documents with the U. S. Postal Service on November 19, 2001 by express mail to the Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231; and that the U.S. Postal Service refused to accept said application and filing documents.

The undersigned declares that all statements made herein are true and correct, and that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

*Paul J. White*

Paul J. White, Reg. No. 30,436  
Attorney for Applicants  
303/384-7575

Dated: November 21, 2001.

National Renewable Energy Laboratory  
1617 Cole Blvd.  
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